IN THE DRAWINGS

The attached sheets of drawings include changes to Figs. 1, 5, 6, 7, 8, 9, 19, and 20. These sheets, which include Figs. 1, 5, 6, 7, 8, 9, 19, and 20, replaces the original sheets including Figs. 1, 5, 6, 7, 8, 9, 19, and 20.

Attachment: Replacement Sheets

REMARKS/ARGUMENTS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1-13 are pending in the present application, Claims 1, 4, 6-10, 12, and 13 having been amended, and Claims 14-16 having been canceled without prejudice or disclaimer. Applicants respectfully submit that no new matter is added.

In the outstanding Office Action, the drawings were objected to; Claims 1, 2, 7, 8, and 13-16 were provisionally rejected under non-statutory obviousness-type double patenting as unpatentable over Claims 1, 16, and 29-32 of copending Application Serial No. 10/536,580; Claims 12-16 were objected to; Claims 4 and 8 were rejected under 35 U.S.C. §112, second paragraph; Claims 13, 14, and 16 were rejected under 35 U.S.C. §101; and Claims 1-16 were rejected under 35 U.S.C. §102(b) as anticipated by *A Self-organizing Semantic Map for Information Retrieval*, by Xia Lin (hereinafter Lin).

With respect to the objection to the drawings, Figs. 1, 5-9, 19, and 20 are amended to include a legend that sets out the correspondence between reference numerals used in the drawing and the relevant textual feature from the specification. Accordingly, Applicant respectfully submits that the objection to the drawings is overcome.

With respect to the provisional double patenting rejection, Applicant respectfully requests that the provisional double patenting rejection of Claims 1, 2, 7, 8, and 13-16 be held in abeyance until the conditions are ripe for a non-provisional double patenting rejection.

With respect to the objection to Claim 12, Claim 12 is amended to depend on Claim 11 as suggested by the outstanding Office Action. Accordingly, Applicant respectfully submits that the objection to Claim 12 is overcome.

With respect to the objection to Claims 13-16, Claim 13 is amended to recite that the computer software having program code is executed by a computer. Claims 14-16 are

canceled by present amendment. Accordingly, Applicant respectfully submits that the objection to Claims 13-16 is overcome.

With respect to the rejection of Claims 4 and 8 under 35 U.S.C. §112, second paragraph, Claims 4 and 9 (from which Claim 7 depends) are amended to correct the informalities identified in the outstanding Office Action. Claim 4 is amended to depend from Claim 3, and to change "the number" to "a number." Claim 7, from which Claim 8 depends, is amended to provide an antecedent basis for "the search processor." Accordingly, Applicant respectfully submits that the rejection of Claims 4 and 8 under 35 U.S.C. §112, second paragraph, is overcome.

With respect to the rejection of Claims 13, 14, and 16 under 35 U.S.C. §101, Claim 13 is amended to describe that the computer software is provided on a storage medium and to specify that the program code, when executed on a computer causes the computer to carry out a method according to Claim 7. Claims 14 and 16 are canceled by the present amendment. Applicant respectfully submits that the rejection of Claims 13, 14, and 16 under 35 U.S.C. §101 is overcome.

Moreover, MPEP § 2106 discusses statutory subject matter in relation to data structures of a computer readable medium. Particularly, MPEP § 2106 provides,

> **a claimed computer-readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory.**

Thus, based on the clear language of this section, Claim 13 is statutory as it defines a functionality of which is realized based on the interrelationship of the structure to the medium and recited hardware components.

Further, should the Examiner disagree with the above passage, MPEP § 2106 also states that,

> Whenever practicable, Office personnel should indicate how rejections may be overcome and how problems may be resolved. A failure to follow this approach can lead to unnecessary delays in the prosecution of the application.

Applicant respectfully submits, as noted above, that the rejection under 35 U.S.C. §101 should be withdrawn. However, if the rejection under U.S.C. §101 is to be maintained, Applicant respectfully requests that the Examiner provide an explanation of the rejection in view of the guidelines of MPEP § 2106.

The inventor of the present application has recognized that typically, a search according to a particular keyword will yield a set of identified information items. From these information items, the user may determine that one of these information items is of particular interest. A related search may provide items which have some correlation to this information item of interest.[1]

Fig. 19 of the present application shows, for a non-limiting embodiment of the claimed invention, how search processor 404 performs a related search. As shown in Fig. 19, a user may determine form the results of an earlier key word search that document item corresponding to position 490 is of interest. To effect a related search, the user arranges the mouse pointer MP to be positioned over the position of interest 490 and engages a related search through a menu option, which for example may appear automatically. Upon engaging

[1] Specification, page 25, lines 21-24.

a related search, the search processor 404 identifies information items corresponding to array positions within a predetermined number of neighbouring positions from the position of interest 490. For example, the search processor 404 may identify information items corresponding to array positions within a square box 492, the box being formed from plus and minus two positions in the x and y directions. Alternatively, the search processor 404 may identify information items corresponding to array positions within a circle having a predetermined radius R of one position on the diagonal from the array position 490 of the selected information item of interest.[2]

With respect to the rejection of Claim 1 as anticipated by Lin, Applicant respectfully traverses this ground of rejection. Amended Claim 1 recites, *inter alia*, "a search processor operable to perform a related search with respect to the user selected information item by identifying, from the map, information items which correspond to positions in the array which are neighbouring positions with respect to the array position corresponding to the user selected information item." Lin does not disclose or suggest these elements of amended Claim 1.

The outstanding Office Action takes the position that a user of the device disclosed in Lin would be able to select a node of the self-organizing map, and if the node includes an item of interest, the user would be able to go back to the map and search for related information in the neighbouring nodes by selecting a region of choice around the selected node.[3]

However, this proposed manner of searching set forth in the outstanding Office Action is carried out by the user, and not by a search processor as required by Claim 1.

In a non-limiting embodiment of the claimed invention, a search processor is provided that performs a related search with respect to a selected information item by identifying from

[2] Specification, page 26, lines 2-12.
[3] Office Action, page 9.

the map information items which correspond to positions in the array which are neighbouring positions with respect to the array positions corresponding to the user selected information item. In this way, a search of information items of interest can be effected with a reduced complexity because information items can be identified directly from neighbouring areas of the map rather than by searching the information items for some characterizing information feature such as a keyword.

Lin does not disclose or suggest the claimed "search processor operable to perform a related search with respect to the user selected information item by identifying, from the map, information items which correspond to positions in the array which are neighbouring positions with respect to the array position corresponding to the user selected information item." On the contrary, Lin merely discloses the conventional information retrieval system that the claimed invention improves upon. With the information retrieval system disclosed in Lin, the user must browse the self-organizing map to discover information items of interest. While the user may indeed select a particular node and subsequently look at surrounding nodes on the map, this is a tedious manual operation that must be performed by the user. This user performed process cannot be performed to a high degree of accuracy or correlation.

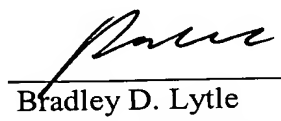
In a non-limiting embodiment of the claimed invention, the clustering properties of the map, whereby highly correlated information items are positioned close to each other, may be utilized to present the user with a list of further information items related to a user selected information item to a desired degree of correlation.

In view of the above-noted distinctions, Applicant respectfully submits that Claim 1 (and Claims 2-6 dependent thereon) patentably distinguishes over Lin. Although of a different statutory class, Applicant respectfully submits that Claim 7 is similar to Claim 1. Thus, Applicant respectfully submits that Claim 7 (and Claims 8-13 dependent thereon) patentably distinguish over Lin, for at least the reasons stated for Claim 1.

Consequently, in light of the above discussion and in view of the present amendment, the present application is believed to be in condition for allowance and an early and favorable action to that effect is respectfully requested.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.



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